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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/633,977	08/04/2003	Yoshiki Kuhara	12852-019001	5634

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EXAMINER

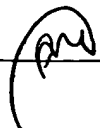
DUPUIS, DEREK L

ART UNIT	PAPER NUMBER
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2883

DATE MAILED: 01/11/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/633,977	Applicant(s) KUHARA, YOSHIKI	
	Examiner Derek L. Dupuis	Art Unit 2883	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 December 2005.
 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-10 and 12 is/are pending in the application.
 4a) Of the above claim(s) 4,5,8 and 9 is/are withdrawn from consideration.
 5) ☐ Claim(s) _____ is/are allowed.
 6) ☒ Claim(s) 1,3,6,7,10 and 12 is/are rejected.
 7) ☐ Claim(s) _____ is/are objected to.
 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
 10) ☒ The drawing(s) filed on 04 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☒ All b) ☐ Some * c) ☐ None of:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date: _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date: _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 12/22/2005 has been entered.

Response to Arguments

2. Applicant's arguments filed 12/22/2005 have been fully considered but they are not persuasive. The examiner respectfully disagrees with the applicant's argument on page 7 that the combination does not result in the claimed subject matter since the combination does not teach that the grating is formed in the fiber after the fiber is secured. This is a process limitation thus making the claims product-by-process claims. These method limitations are not given patentable weight in a product claim.

3. The examiner respectfully disagrees with the applicant's argument on page 6 that one of ordinary skill in the art would not be motivated to combine the references because of problems the applicant mentions in the specification. While the applicant has identified drawbacks to the combination, these drawbacks are not explicitly discussed in either reference. Therefore, the references do not teach away from the combination. Furthermore, because a combination has drawbacks, does not necessarily render the combination non-obvious. The examiner provided sufficient motivation for one of ordinary skill in the art to combine the references. Motivation to combine the references would be that the optical module of Nobuhara could be used as an

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optical resonator by including the Bragg grating in the fiber as taught by Kato et al. Kato et al teach that optical resonators are very desirable in optical communications systems (see column 1, lines 23-37 of Kato et al). Furthermore, Nobuhara teaches that the module would provide added security and stability to the optical fiber structure (paragraphs 87 and 88).

4. Applicant's amendment filed on 12/22/2005 has cancelled claims 2 and 11. Claims 4, 5, 8, and 9 stand withdrawn. Claims 1, 3, 6, 7, 10, and 12 have been examined and stand rejected.

Product By Process Claims

5. Claims 1, 3, 6, 7, 10, and 12 are **product-by-process claims**:

Note that a "product by process" claim is directed to the product per se, no matter how actually made, *In re Hirao*, 190 USPQ 15 at 17 (footnote 3). See also *In re Thorpe*, 227 USPQ 964, 966; *In re Luck*, 177 USPQ 523; *In re Fessmann*, 180 USPQ 324; *In re Avery*, 186 USPQ 161; *In re Wertheim*, 191 USPQ 90 (209 USPQ 554 does not deal with this issue); and *In re Marosi et al.*, 218 USPQ 289, all of which make it clear that it is the patentability of the final product per se which must be determined in a "product by process" claim, and not the patentability of the process, and that an old or obvious product produced by a new method is not patentable as a product, whether claimed in "product by process" claims or not. Note that applicant has the burden of proof in such cases, as the above case law makes clear. See also MPEP 2113.

6. Claims 1, 3, 6, 7, 10, and 12 do not distinguish over the prior art of record regardless of the process used to create the optical module, because only the final product is relevant, and not the process of making forming the grating in the fiber after securing the fiber in the through hole.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1, 3, 6, 7, 10, and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Nobuhara et al (US 2001/0019648 A1)* in view of *Kato et al (US 6,273,620 B1)*.

9. Regarding claims 1, 3, 10, and 12, Nobuhara et al teach an optical module as shown in figure 1. The module includes a column-shaped mounting member (16) having a through hole (20) extending in a direction of the central axis of the mounting member. The through hole is formed by partially incising a part of the mounting member so as to expose the interior surface of the through hole (see paragraph 81). The exposed interior surface of the through hole functions as a groove. An optical fiber (22) is inserted in the through hole and is secured in such a way so that the optical fiber protrudes with a specified length onto the mounting surface (see paragraph 81). Nobuhara et al do not teach that the fiber has a Bragg grating formed on the protruding part of the optical fiber. However, Kato et al teach an optical module comprising a ferrule containing an optical fiber with a Bragg grating near the tip of the fiber (see column 3, lines 21-43). Kato et al also teach that the Bragg grating is used with a semiconductor optical amplifier to make an optical resonator (see column 1, lines 23-30 of Kato et al). The semiconductor optical amplifier is mounted on the same surface as the protruding portion of the optical fiber (see column 3, line 66 to column 4, line 9 of Kato et al).

10. Regarding claims 6 and 7, Nobuhara et al in view of Kato et al teach an optical module as discussed above in reference to claim 1. Nobuhara et al teach that the mounting member is made of a ceramic material, specifically, zirconia (see paragraph 80).

11. It would have been obvious to one of ordinary skill in the art at the time of invention to modify the module of Nobuhara et al to include a Bragg grating formed in the protruding part of the optical fiber as taught by Kato et al. Motivation to do this would be for the purpose of creating an optical resonator (see column 1, lines 23-30 of Kato et al). A further motivation for using the mounting member of Nobuhara to mount the optical fiber with the Bragg grating would

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be to prevent the generation of fiber bends and to make the fiber more resistant to temperature variations (see paragraph 88).

Conclusion

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. *Kuhara et al (US 6,975,812 B1)* teach an optical module including many of the limitations of claims 1, 10, and 12.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Derek L. Dupuis whose telephone number is (571) 272-3101. The examiner can normally be reached on Monday - Friday 8:30am-4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Frank G. Font can be reached on (571) 272-2415. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Derek L. Dupuis
Group Art Unit 2883



Frank G. Font
Supervisory Patent Examiner
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